Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Effect of vasopressin and epinephrine in cardiac arrest outcomes in patients with asystole rhythm

Protocol summary

Summary

The most persistent rhythm in treatment of cardiac arrest is asystole rhythm. In this situation, the survival is low. Although epinephrine is the choice but some studies suggested vasopressin as an alternative drug .This study's purpose is to compare effects of vasopressin and epinephrine in the patients with asystole rhythm.Inclusion criteria is including the patients with Asystole rhythm. Exclusion criteria are including : Ventricular Fibrilation ؛ Pulssless Ventricular Tachycardia ؛ Pulseless Electrical Activity ؛ Do Not Resuscitation protocol ؛ Pregnancy ؛ Hemorrhagic shock ؛ CPR after 20 minutes. This double blind clinical trial will perform on 210 patients with asystole rhythm. 105 patients will receive epinephrine (group 1) and 105 patients vasopressin (group 2) as first drug. Next, American Heart Association guideline 2010 willperform in both of them. Then data collection such as age, sex, Return Of Spontaneous Circulation (ROSC), the survival of 1 hour, 24 hours and one month, heart rate after resuscitation and survival to discharge.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015050922181N1**
Registration date: **2015-06-30, 1394/04/09**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2015-06-30, 1394/04/09

Registrant information

Name

Mehdi Torabi

Name of organization / entity

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Kerman University Medical Sciences

Expected recruitment start date

2011-03-20, 1389/12/29

Expected recruitment end date

2013-03-20, 1391/12/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of vasopressin and epinephrine in cardiac arrest outcomes in patients with asystole rhythm

Public title

Vasopressin effect in asystole rhythm patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Patients with Asystole rhythm
Exclusion criteria: Ventricular Fibrilation; Pulssless Ventricular Tachycardia; Pulseless Electrical Activity; no resuscitation; Pregnancy; Hemorrhagic shock; CPR after 20 minutes

Age

No age limit

Gender

Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **210**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Double blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Kerman Univercity Medical Sciences
Street address
After shafa cross-street, jomhoori street, kerman
City
Kerman
Postal code
7618747653
Approval date
2015-05-23, 1394/03/02
Ethics committee reference number
IR.KMU.REC.1394.117

Health conditions studied

1

Description of health condition studied
Cardiac arrest
ICD-10 code
146.0
ICD-10 code description
Cardiac arrest with successful resuscitation

Primary outcomes

1

Description
Return of Spontaneous Circulation
Timepoint
After cardiac rhythm change
Method of measurement
Carotid pulse check

2

Description
Heart rate per minute
Timepoint
After return of circulation
Method of measurement
Cardiac monitoring

3

Description
Patient survival time
Timepoint
First hour, First day, First month
Method of measurement
Patient survival (having respiration and cardiac rhythm)

4

Description
Total patient survival time
Timepoint
After return of circulation
Method of measurement
Minute

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Vasopressin 40 unit intravenous will be pushed in asystole group patients. If there is no response, epinephrine will be pushed every 5 minutes.
Category
Treatment - Drugs

2

Description
Control group: Epinephrine 1 mg intravenous will be pushed in asystole group patients. If there is no response, epinephrine will be pushed every 5 minutes.
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Afzalipoor Hospital
Full name of responsible person
Mehdi Torabi
Street address
Kerman , Emam khomeini Avenue
City

Kerman

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Kerman University Medical Sciences
Full name of responsible person
Assistance of Research and Technology
Street address
After shafa cross-street, jomhoori street, kerman
City
Kerman
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Kerman University Medical Sciences
Proportion provided by this source
100
Public or private sector
empty
Domestic or foreign origin
empty
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
empty

Person responsible for general inquiries

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty
Study Protocol
empty
Statistical Analysis Plan
empty
Informed Consent Form
empty
Clinical Study Report
empty
Analytic Code
empty

Data Dictionary *empty*